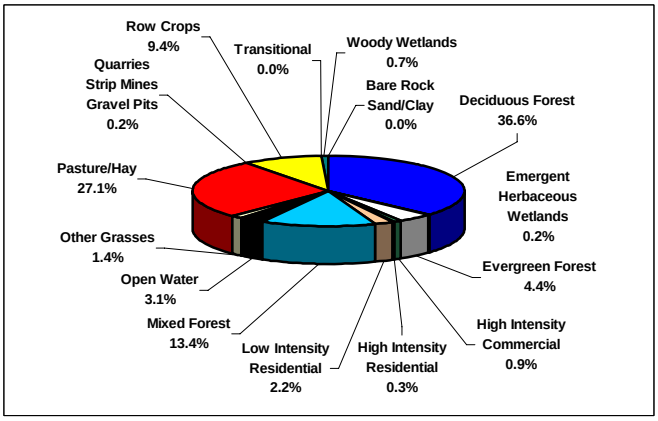
Summary – Old Hickory Lake Watershed

In 1996, the Tennessee Department of Environment and Conservation Division of Water Pollution Control adopted a watershed approach to water quality. This approach is based on the idea that many water quality problems, like the accumulation of point and nonpoint pollutants, are best addressed at the watershed level. Focusing on the whole watershed helps reach the best balance among efforts to control point sources of pollution and polluted runoff as well as protect drinking water sources and sensitive natural resources such as wetlands. Tennessee has chosen to use the USGS 8-digit Hydrologic Unit Code (HUC-8) as the organizing unit.

The Watershed Approach recognizes awareness that restoring and maintaining our waters requires crossing traditional barriers (point *vs.* nonpoint sources of pollution) when designing solutions. These solutions increasingly rely on participation by both public and private sectors, where citizens, elected officials, and technical personnel all have opportunities to participate. The Watershed Approach provides the framework for a watershed-based and community-based approach to address water quality problems.

Chapter 1 of the Old Hickory Lake Watershed Water Quality Management Plan discusses the Watershed Approach and emphasizes that the Watershed Approach is not a regulatory program or an EPA mandate; rather it is a decision-making process that reflects a common strategy for information collection and analysis as well as a common understanding of the roles, priorities, and responsibilities of all stakeholders within a watershed. Traditional activities like permitting, planning and monitoring are also coordinated in the Watershed Approach.

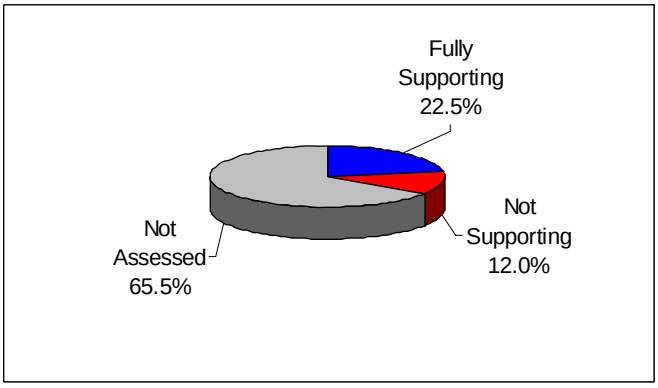
A detailed description of the watershed can be found in Chapter 2. The Old Hickory Lake Watershed is approximately 983 square miles and includes parts of six Tennessee counties. A part of the Cumberland River drainage basin, the watershed has 1,164.3 stream miles and 27,439 lake acres.



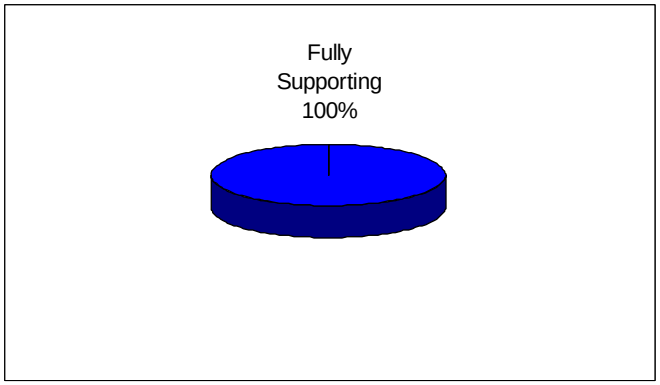
Land Use Distribution in the Old Hickory Lake Watershed.

One designated state natural areas, one state historic area, one state park, and two wildlife management areas are located in the watershed. Fifty-three rare plant and animal species have been documented in the watershed, including six rare fish species and nine rare mussel species. Portions of two streams in the Old Hickory Lake Watershed are listed in the National Rivers Inventory as having one or more outstanding natural or cultural values.

A review of water quality sampling and assessment is presented in Chapter 3. Using the Watershed Approach to Water Quality, 361 sampling events occurred in the Old Hickory Lake Watershed in 2000-2005. These were conducted at ambient, ecoregion or watershed monitoring sites. Monitoring results support the conclusion that 70.3% of stream miles and 100% of lake acres assessed fully support one or more designated uses.



Water Quality Assessment of Streams and Rivers in the Old Hickory Lake Watershed. Assessment data are based on the 2004 Water Quality Assessment of 1,164.3 miles in the watershed.



Water Quality Assessment of Lakes in the Old Hickory Lake Watershed. Assessment data are based on the 2004 Water Quality Assessment of 27,439 lake acres in the watershed.

Also in Chapter 3, a series of maps illustrate overall use support in the watershed, as well as use support for the individual uses of Fish and Aquatic Life Support, Recreation, Irrigation, and Livestock Watering and Wildlife. Another series of maps illustrate streams that are listed for impairment by specific causes (pollutants) such as pathogens, habitat alteration, and nutrient enrichment, and siltation.

Point and Nonpoint Sources are addressed in Chapter 4. Chapter 4 is organized by HUC-12 subwatersheds. Maps illustrating the locations of STORET monitoring sites and stream gauging stations are also presented in each subwatershed.

HUC-10	HUC-12
0513020101	051302010101 (Cumberland River)
	051302010102 (Peyton Creek)
	051302010103 (Cumberland River)
	051302010104 (Cumberland River)
	051302010105 (Cedar Creek)
	051302010106 (Spring Creek)
	051302010107 (Bartons Creek)
0513020102	051302010201 (Round Lick Creek)
	051302010202 (Jennings Fork)
0513020103	051302010301 (Upper Goose Creek)
	051302010302 (Lower Goose Creek)
0513020104	051302010401 (Cumberland River)
	051302010402 (Spencer Creek)
	051302010403 (East Camp Creek)
	051302010404 (Station Camp Creek)
	051302010405 (Cumberland River)
	051302010406 (Cedar Creek)
	051302010407 (Drakes Creek)
0513020105	051302010501 (Upper Bledsoe Creek)
	051302010502 (Lower Bledsoe Creek)

The Old Hickory Lake Watershed is Composed of twenty USGS-Delineated Subwatersheds (12-Digit Subwatersheds).

Point source contributions to the Old Hickory Lake Watershed consist of nineteen individual NPDES-permitted facilities, two of which discharge into streams that have been listed on the 2004 303(d) list. Other point source permits in the watershed are Aquatic Resource Alteration Permits (59), Tennessee Multi-Sector Permits (52), Mining Permits (6), Ready Mix Concrete Plant Permits (9), Aquatic Herbicide Application Permits (4), and Water Treatment Plant Permits (1). Agricultural operations include cattle, hog, and sheep farming. Maps illustrating the locations of permit sites and tables summarizing livestock practices are presented in each subwatershed.

Chapter 5 is entitled *Water Quality Partnerships in the Old Hickory Lake Watershed* and highlights partnerships between agencies and between agencies and landowners that are essential to success. Programs of federal agencies (Natural Resources Conservation Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, and U.S. Army Corps of Engineers), and state agencies (TDEC/State Revolving Fund, TDEC Division of Water Supply and Tennessee Department of Agriculture) are summarized. Local initiatives of organizations active in the watershed (Cumberland River Compact, Central Basin RC&D Council, The Nature Conservancy, and Hull-York Lakeland RC&D Council) are also described.

Point and Nonpoint source approaches to water quality problems in the Old Hickory Lake Watershed are addressed in Chapter 6. Chapter 6 also includes comments received during public meetings, links to EPA-approved TMDLs in the watershed, and an assessment of needs for the watershed.

The full Old Hickory Lake Watershed Water Quality Management Plan can be found at: http://www.state.tn.us/environment/wpc/watershed/wsmplans/